

BookletChartTM

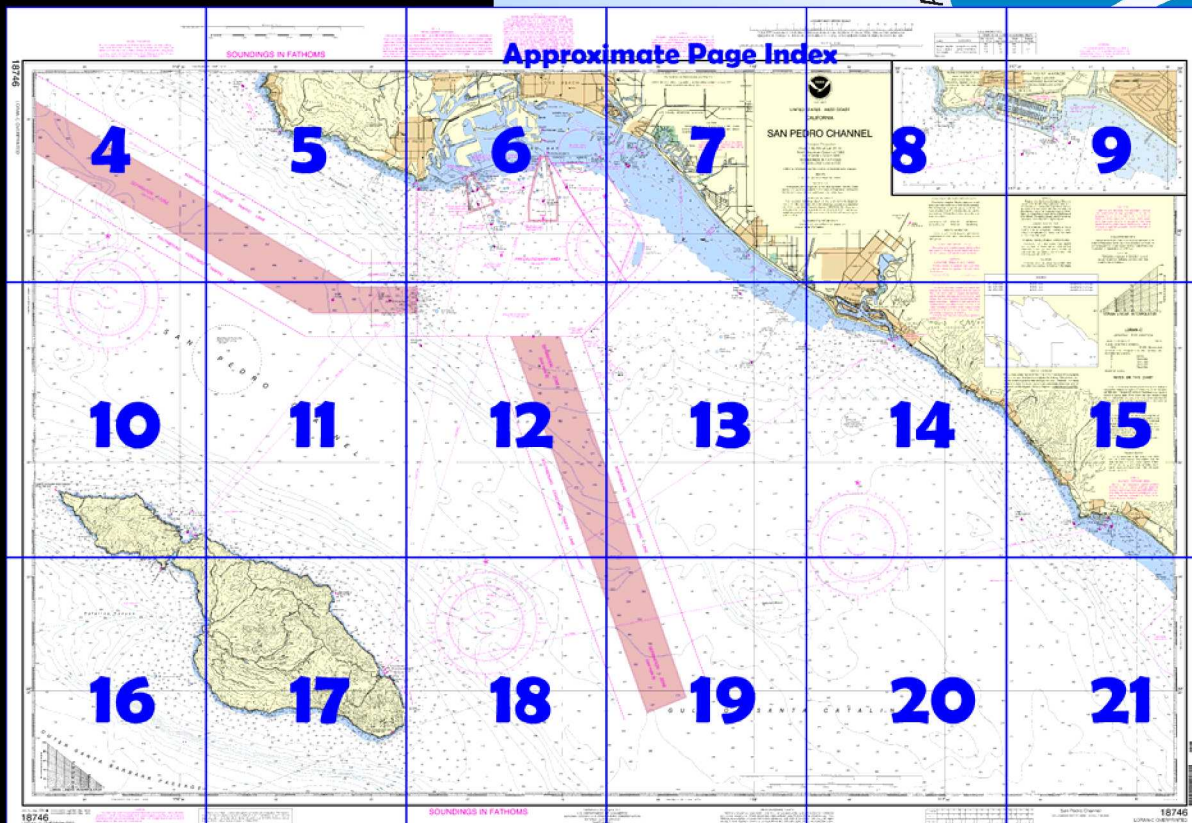
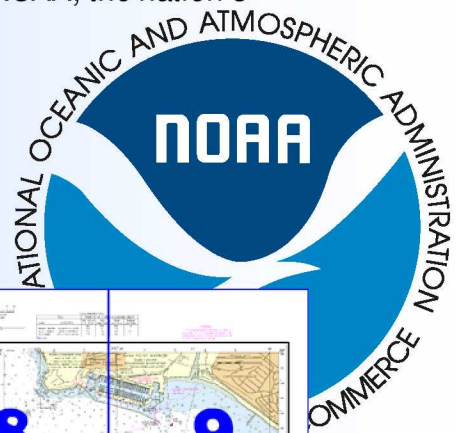
San Pedro Channel

(NOAA Chart 18746)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

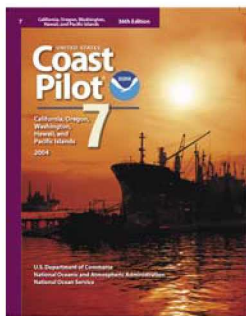
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 7, Chapter 4 & 5 excerpts]

(142) **Dana Point**, 8 miles NW of San Mateo Point, is the seaward end of a high ridge. The spur forming the point ends in a moderately bold sandstone cliff 220 feet high with a precipitous broken face.

(143) **Dana Point Harbor** is a small-craft harbor in the lee of Dana Point.

(155) The 11.5-mile coast from Dana Point to Newport Bay is bold with rocky cliffs 40 to 100 feet high; these are the seaward ends of ridges separated by narrow, deep valleys. The

community of **Laguna Beach** is midway along this stretch.

(158) **Newport Bay**, 64 miles NW of Point Loma, is an extensive lagoon bordered on the seaward side by a 3-mile sandspit. The bay is an important yachting and sport fishing center, and offers excellent anchorage for large yachts and small craft under all weather conditions.

The city of **Newport Beach** embraces the districts of **Newport** and **Balboa**, on the sandspit, and **Corona Del Mar**, E of the entrance.

(177) **Huntington Beach State Park** is a recreational area that extends 2 miles NW along the coast from the mouth of **Santa Ana River**, which is 4.5 miles NW of Newport Bay entrance.

(179) **Anaheim Bay**, 14 miles NW of Newport Bay, is the site of the U.S. Naval Weapons Station.

(195) **San Pedro Bay**, between Seal Beach on the E and Point Fermin on the W, is 82 miles NW of San Diego. On the shores of the bay are the city **Long Beach** and the port areas of the city of **Los Angeles**.

Terminal Island, in the NW part of San Pedro Bay, separates the outer bay from Los Angeles and Long Beach inner harbors. The bay is protected by breakwaters and is a safe harbor in any weather.

(259) **Los Angeles Harbor**, at the W end of San Pedro Bay, includes the districts of **San Pedro**, **Wilmington**, and a major portion of Terminal Island.

(260) **Long Beach Harbor**, in the E part of San Pedro Bay, includes the City of Long Beach and a portion of Terminal Island. Long Beach and Los Angeles Harbors are connected by Cerritos Channel. The distance between the seaward entrance to the two harbors is about 4 miles. Long Beach Inner Harbor, Middle Harbor, and Southeast Basin are protected by three curving moles.

(261) Four oil production islands, marked by lights, are to the N and E of Long Beach Pier J. A fog signal is sounded from the S end of each island.

(262) The **Port of Los Angeles**, one of the largest ports on the Pacific coast, has a history of leading the Pacific coast ports in terms of tonnage handled. It has extensive facilities to accommodate all types of traffic. Some of the principal exports are crude minerals, iron and steel scrap, inorganic chemicals, animal feed, cotton, manufactured fertilizers, and fresh fruits and nuts. Some of the principal imports are iron and steel products, motor vehicles and parts, organic chemicals, fresh fruits and nuts, paper and paperboard, sugar, molasses and syrups, glass, and fresh and frozen fish.

(263) The **Port of Long Beach**, also one of the largest ports on the Pacific coast, has the reputation of being America's most modern port. It has extensive foreign and domestic traffic with modern facilities for the largest vessels. It is a major container cargo port with several of the largest and most efficient container terminals on the Pacific coast. Some of the principal exports are bulk petroleum, bulk coke, steel and steel products, bulk potash, grains, fresh fruits, scrap steel, animal feed, and copper concentrate. Some of the principal imports are crude petroleum, steel and steel products, motor vehicles and parts, machinery, bulk gypsum, newsprint, lumber, bulk salt, bananas, plywood, bulk molasses.

(264) **San Pedro Hill**, 3.3 miles NW of Point Fermin, is the distinguishing feature for making San Pedro Bay from SE or W.

(44) **Santa Catalina Island**, 18 miles S of Point Fermin, is 18.5 miles long in a SE direction and has a greatest width of 7 miles. The island is privately owned. Arrangements for overnight permits and the leasing of the many mooring buoys found throughout the area may be made through Two Harbors Enterprises at Two Harbors. Except at Avalon, permits are required for activities other than day use on the other islands.

(47) Lights are shown from a pole with a red and white diamond-shaped daymark on the S end, **Long Point** (E side), and **West End** (NW point) of the island.

(54) **Avalon Bay**, on the N shore of Santa Catalina Island, 2.5 miles from its SE extremity is entered between **Casino Point**, breakwater on the N and the breakwater extending from **Cabrillo Peninsula**, on the S. The breakwaters are marked by lights on their seaward ends.

(73) **Catalina Harbor**, on the S side of the isthmus separating it from Isthmus Cove, affords excellent shelter for small vessels in all but S weather.

(74) **San Pedro Channel** is about 17 miles wide between the mainland, Point Fermin to Point Vicente, and Santa Catalina Island. Current observations have been made 7 miles S of San Pedro Breakwater.

Table of Selected Chart Notes

PLANE COORDINATE GRID
(based on NAD 1927)
California State Grid, zone VI, is indicated by dashed ticks at 2,000-foot intervals. The last three digits are omitted.

Scale 1:20,000
SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

Corrected through NM Nov. 21/09
Corrected through LNM Nov. 03/09

HEIGHTS

Heights in feet above Mean High Water.

NOTE E

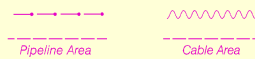
Vessels with 50 foot draft or less will be boarded south of RACON Buoy 3. Vessels with a draft greater than 50 feet will be boarded south of Buoy 1.

CAUTION
Vessels are prohibited from entering ANCHORAGE G unless bound for a berth in that anchorage (110,214).

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling. Covered wells may be marked by lighted or unlighted buoys.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

Mercator Projection
Scale 1:80,000 at Lat 33° 31'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately maintained buoys are not all listed in the U.S. Coast Guard Light List.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution. Station positions are shown thus:
○ (Accurate location) o (Approximate location)

NOTE C

MILITARY EXERCISE AREA

Mariners are cautioned against possible hazards due to military training activities. Normal hours of operation are 0600-2400 local time daily. For extension of operating times and further information consult U.S. Coast Guard Local Notice to Mariners.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

For Symbols and Abbreviations see Chart No. 1

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Los Angeles, CA KWO-37 162.550 MHz
Santa Ana, CA WWG-21 162.450 MHz

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CABLE AND PIPELINE AREAS

The cable and pipeline areas falling within the areas of the larger scale charts are shown thereon and are not repeated on this chart.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

CAUTION

Vessels entering Long Beach Channel should pass eastward of lighted whistle buoy 'LB,' and vessels departing should pass westward of it.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, California or at the Office of the District Engineer, Corps of Engineers in Los Angeles, California. Refer to charted regulation section numbers.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY 100KHz.

PULSE REPETITION INTERVAL

9940 99,400 Microseconds

STATION TYPE DESIGNATORS: (Not individual station letter designators)

M Master
W Secondary
X Secondary
Y Secondary
Z Secondary

EXAMPLE: 9940-X

RATES ON THIS CHART

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

NOTE D

VESSEL TRAFFIC MANAGEMENT SYSTEM (VTMS)

The Vessel Traffic Service of Los Angeles - Long Beach, jointly operated by the U.S. Coast Guard and Marine Exchange, has been established within the approaches to San Pedro Bay. The working frequency for the VTS is channel 14 VHF/FM (156.7 MHz) and the call sign is "San Pedro Traffic." Upon entering the VTS area, within a 25 nautical mile radius of Pt Fermin (LAT 33°42.3'N, LONG 118°17.6'W), all inbound vessels shall report on channel 14 their vessel name, call sign, position, course and speed, destination, estimated time of arrival to their destination and whether or not their vessel will be taking on a pilot. Outbound vessels shall report 15 minutes prior to reaching the breakwater. To obtain information on the movement of deep draft vessels inside the Federal Breakwater contact the Los Angeles Pilot Station on channel 73 (156.675 MHz) / ph 562-732-3805 or Long Beach Pilot Station on channel 74 (156.6 MHz) / ph 562-432-9664.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.076" northward and 3.210" westward to agree with this chart.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

COLREGS: International Regulations for Preventing Collisions at Sea, 1972. Demarcation lines are shown thus: --- -- --

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Department of the Navy.

VESSEL TRANSITING

The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska and San Diego, California. See U.S. Coast Pilot 7, Chapter 3 for details.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/C52), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

TIDAL INFORMATION

PLACE	(LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Newport Bay Ent.	(33°36'N/117°53'W)	5.4	4.7	0.9
Catalina Harbor	(33°28'N/118°30'W)	5.2	4.5	0.9
Los Angeles	(33°43'N/118°16'W)	5.5	4.8	0.9

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Sep 2009)

NOTE B

TRAFFIC SEPARATION SCHEME

One-way traffic lanes overprinted on this chart are RECOMMENDED for use by all vessels traveling between the points involved. They have been designed to aid in the prevention of collisions at the approaches to major harbors and along heavily traveled coastal waters, but are not intended in any way to supersede or to alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones use extreme caution. The normal Pilot Operating Areas are outlined by trapezoidal magenta bands. A Precautionary Area has been established at Los Angeles - Long Beach. It is recommended that vessels proceed with caution in this area.

PRINT-ON-DEMAND CHARTS

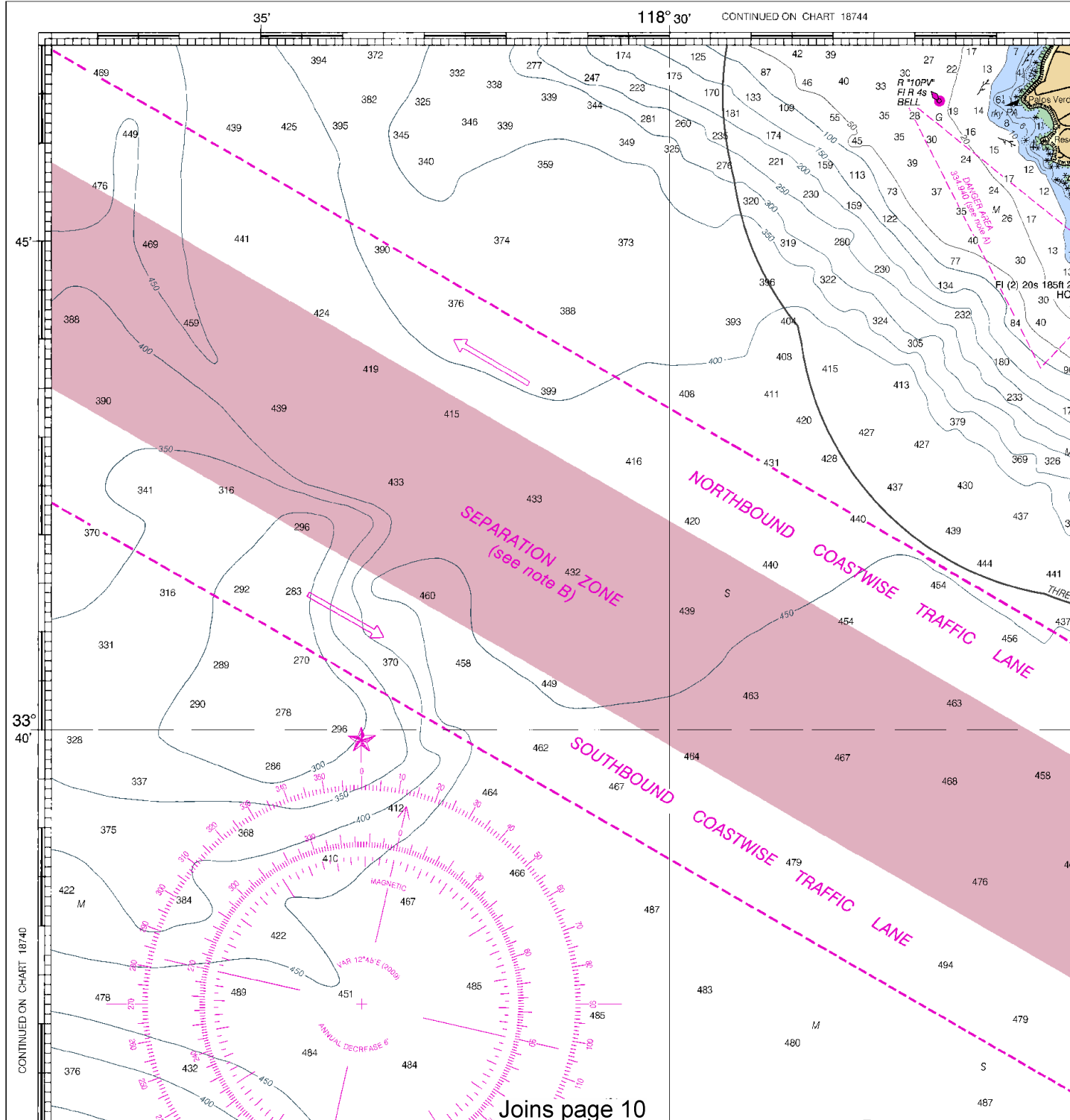
NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: <http://www.epa.gov/owow/oceans/regulator/vessel sewage/>.

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LORAN-C OVERPRINTED



Joins page 10

Printed at reduced scale.

~~SCALE 1:80,000~~

See Note on page 5.



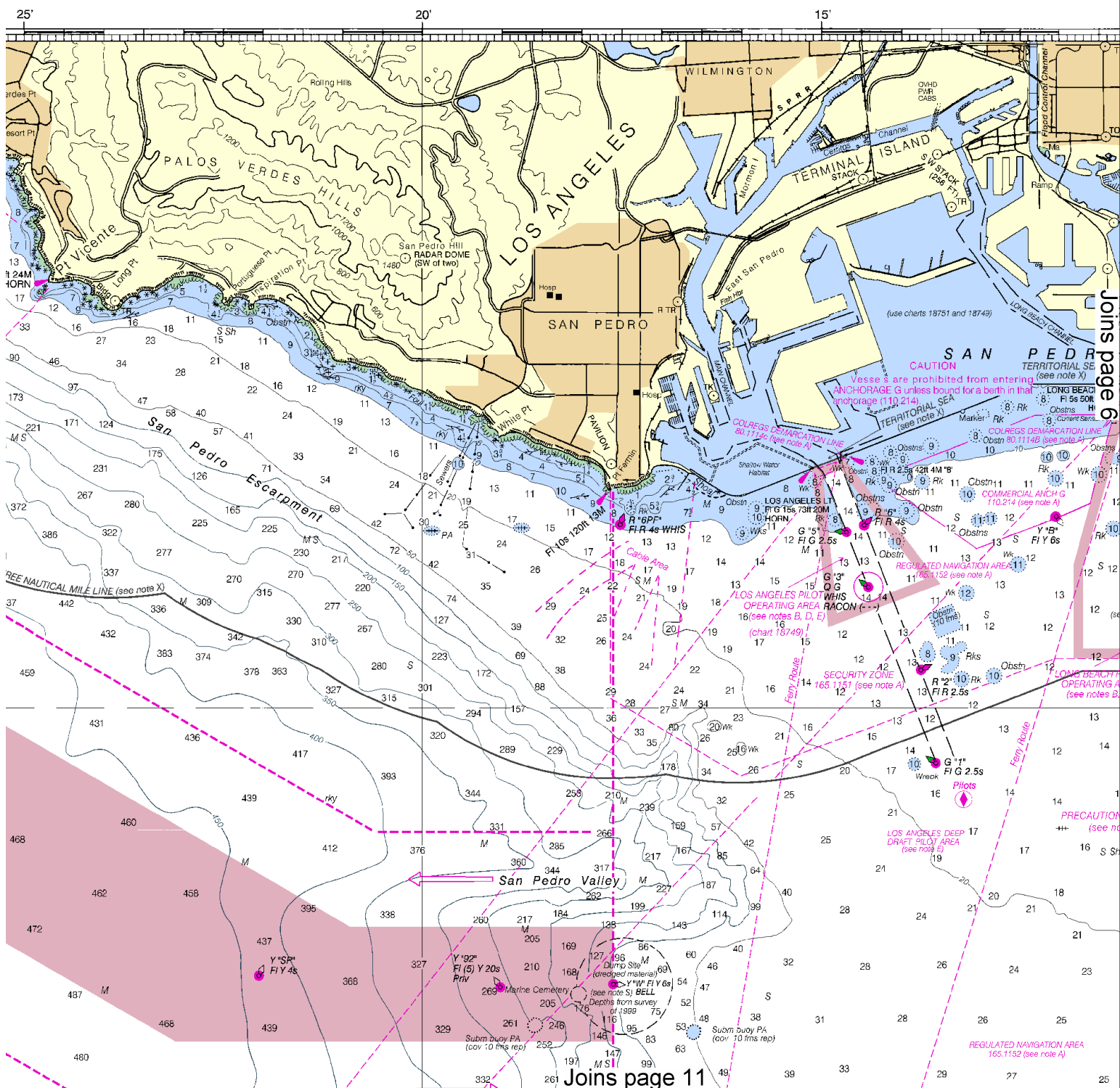
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3 IN FATHOMS

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VESSEL TRAFFIC MANAG
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inbound vessels shall report on
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vessel will be taking on a pilot.
15 minutes prior to reaching
information on the movement of
Federal Breakwater contact the
channel 73 (156.675 MHz) / ph
Pilot Station on channel 74 (156



This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:106667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

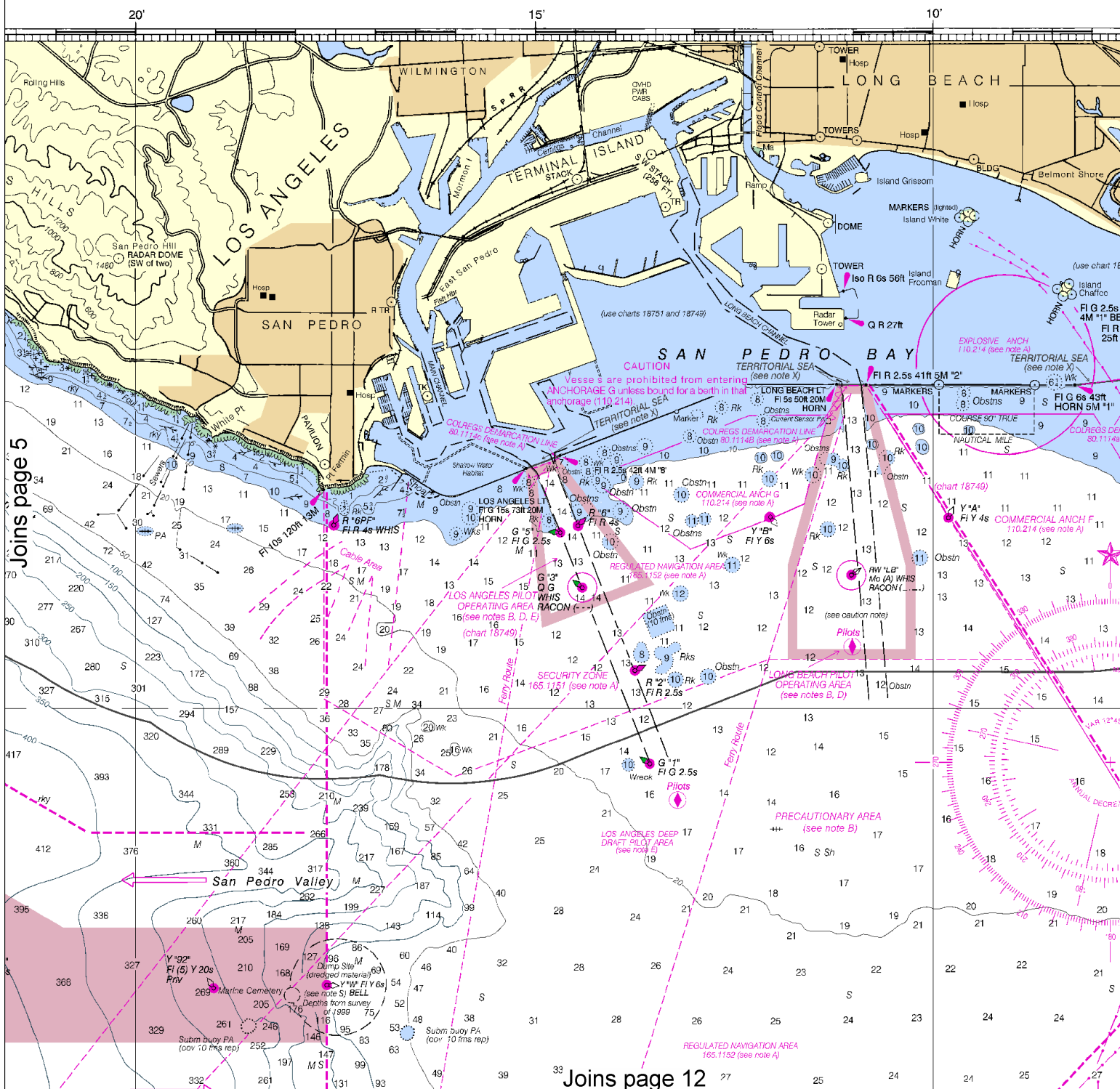
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NOTE B TRAFFIC SEPARATION SCHEME

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Formerly C&GS 5142, 1s



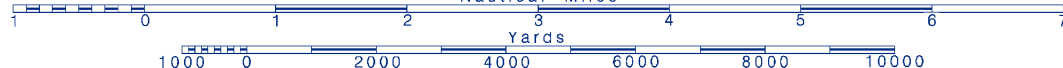
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Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

See Note on page 5.

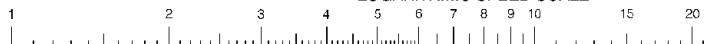


NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, California or at the Office of the District Engineer, Corps of Engineers in Los Angeles, California.

Refer to charted regulation section numbers.

LOGARITHMIC SPEED SCALE



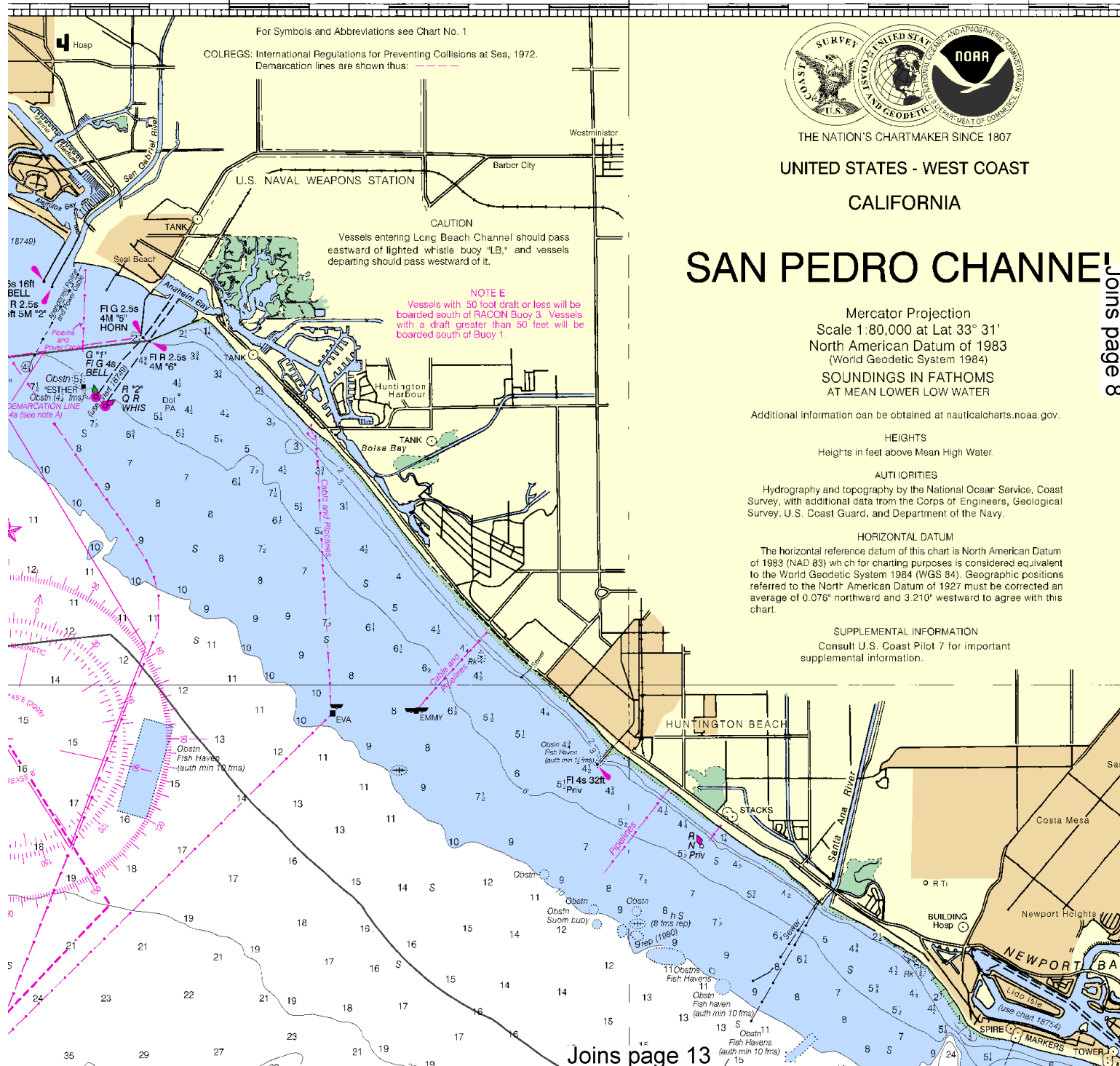
To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without moving right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 m

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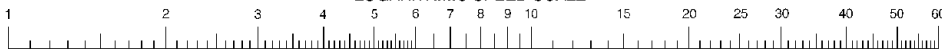
This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0510 2/2/2010,
 NGA Weekly Notice to Mariners: 0910 2/27/2010,
 Canadian Coast Guard Notice to Mariners: n/a .

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NOTE A

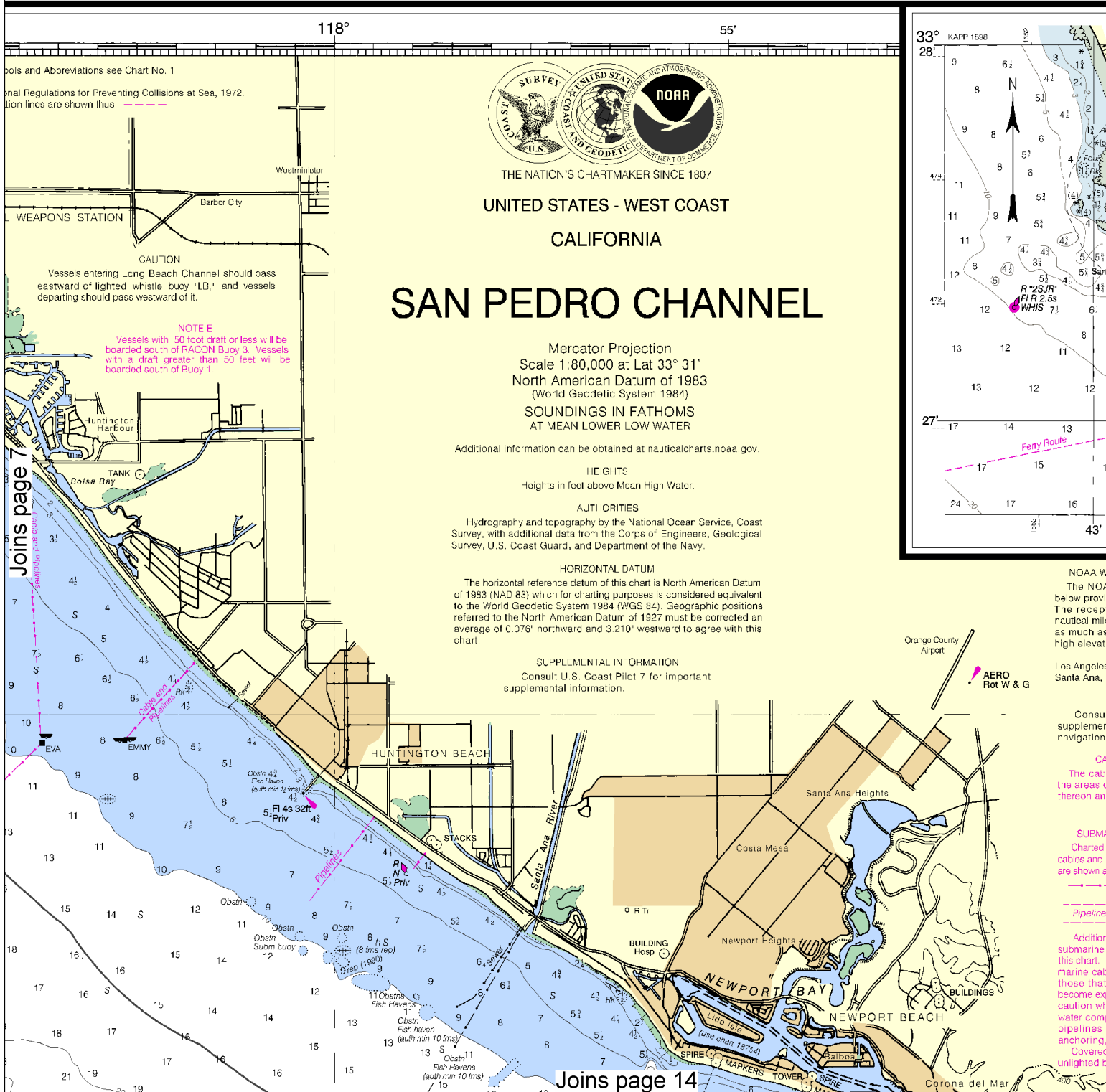
ations are published in Chapter 2, U.S.
ions or revisions to Chapter 2 are pub-
Mariners. Information concerning the
ained at the Office of the Commander,
strict in Alameda, California or at the
ct Engineer, Corps of Engineers in
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regulation section numbers.

LOGARITHMIC SPEED SCALE



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Printed at reduced scale.

SCALE 1:80,000
Nautical Miles

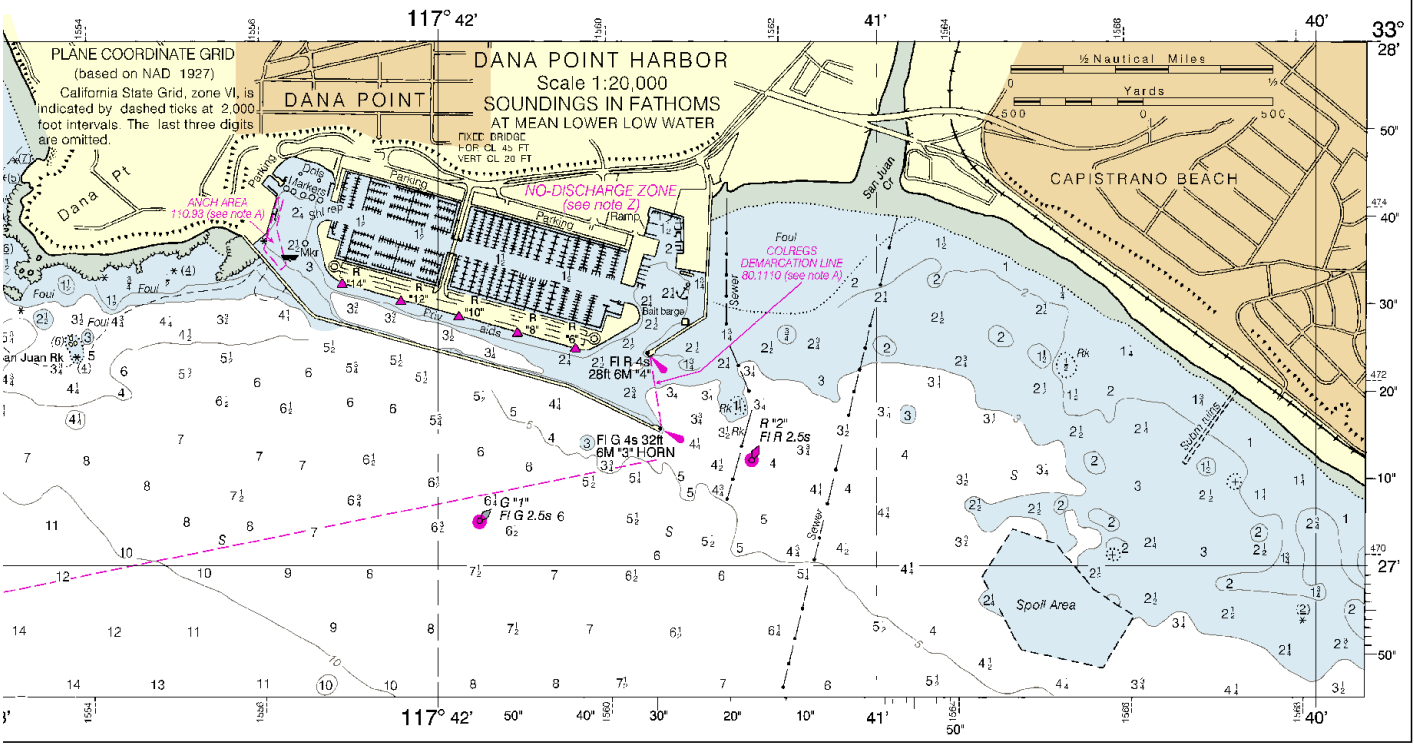
See Note on page 5.



TIDAL INFORMATION table with columns: PLACE, Height referred to datum of soundings (MLLW), Mean Higher High Water, Mean Low Water, Mean Low Water.

NOTE X Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws.

WARNING The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.



WEATHER RADIO BROADCASTS DAA Weather Radio stations listed provide continuous weather broadcasts. Reception range is typically 20 to 40 miles from the antenna site, but can be as low as 100 nautical miles for stations at sea.

AIDS TO NAVIGATION Built U.S. Coast Guard Light List for essential information concerning aids to navigation.

CABLE AND PIPELINE AREAS Cable and pipeline areas falling within the larger scale charts are shown and are not repeated on this chart.

CAUTION MARINE PIPELINES AND CABLES Submarine pipelines and submarine cables may exist within the area of the chart. Not all submarine pipelines and cables are required to be buried, and at some locations they may be exposed.

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RADAR REFLECTORS Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

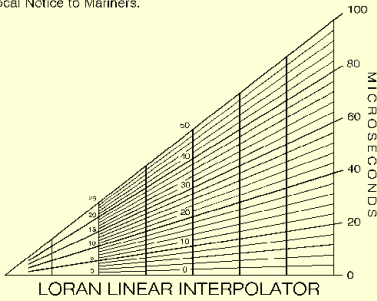
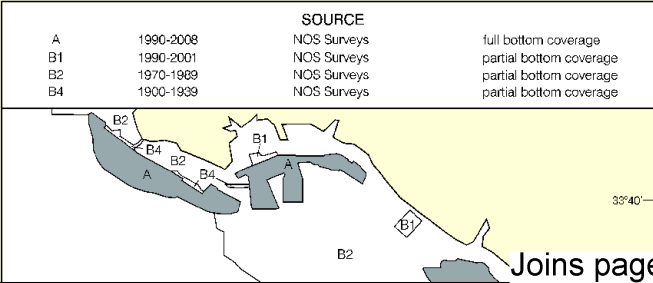
MINERAL DEVELOPMENT STRUCTURES Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 87).

CAUTION Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

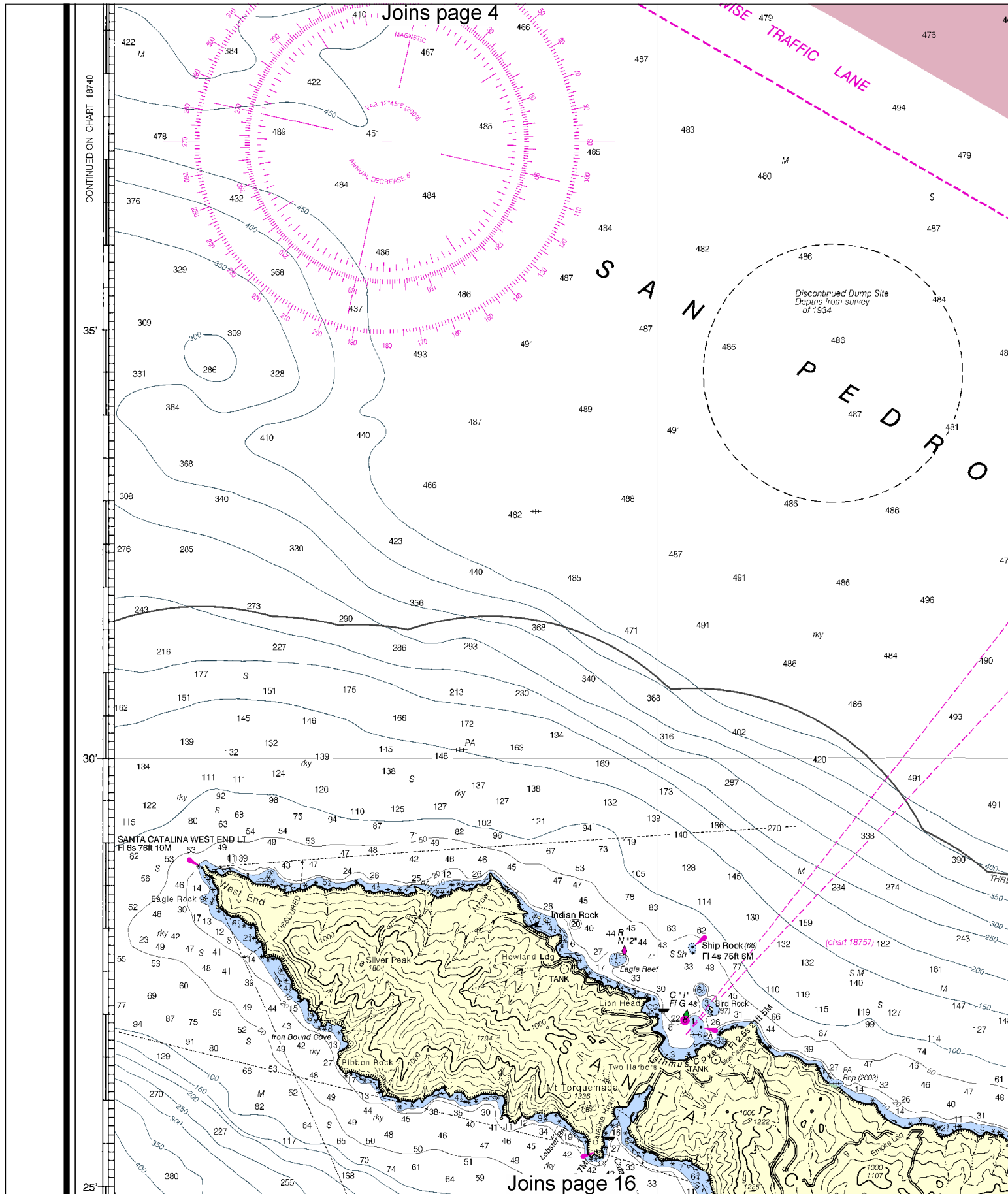
CAUTION Mariners are cautioned that exploratory surveys and exploratory drilling operations may be in progress in, or in the vicinity of, the Southern California Traffic Separation Scheme. These operations may pose hazards to navigation. The most recent Eleventh Coast Guard District Local Notice to Mariners should be consulted for the schedule of current operations.

POLLUTION REPORTS Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.



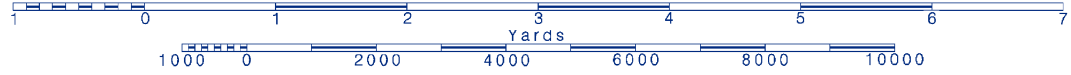
Joins page 15



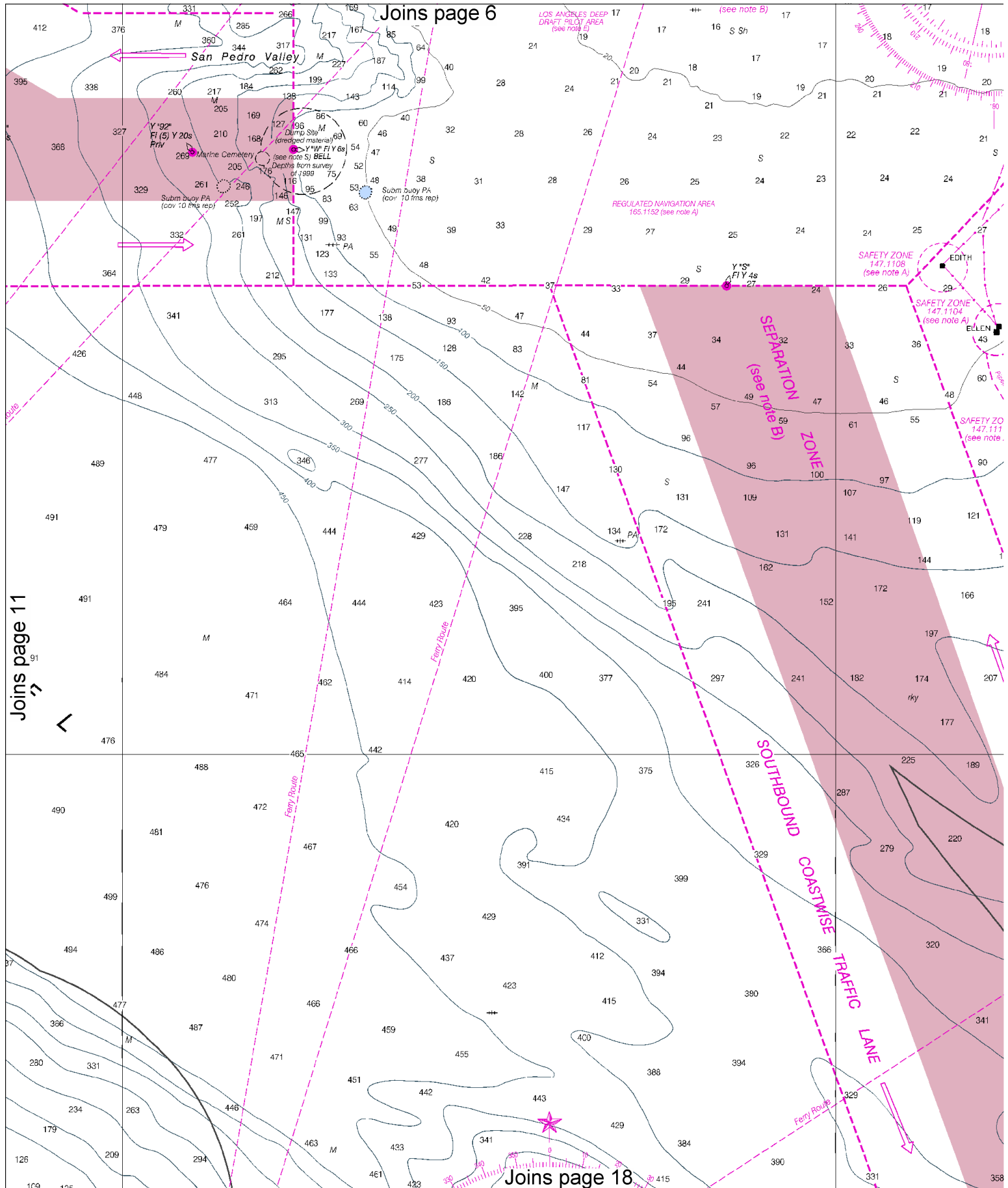
10



Printed at reduced scale. SCALE 1:80,000
Nautical Miles



See Note on page 5.



Joins page 11

Joins page 6

Joins page 18

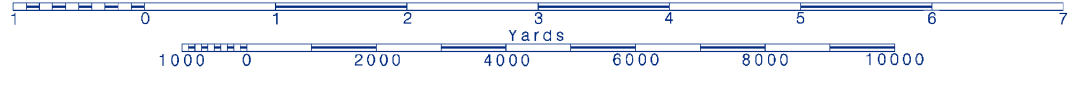
12

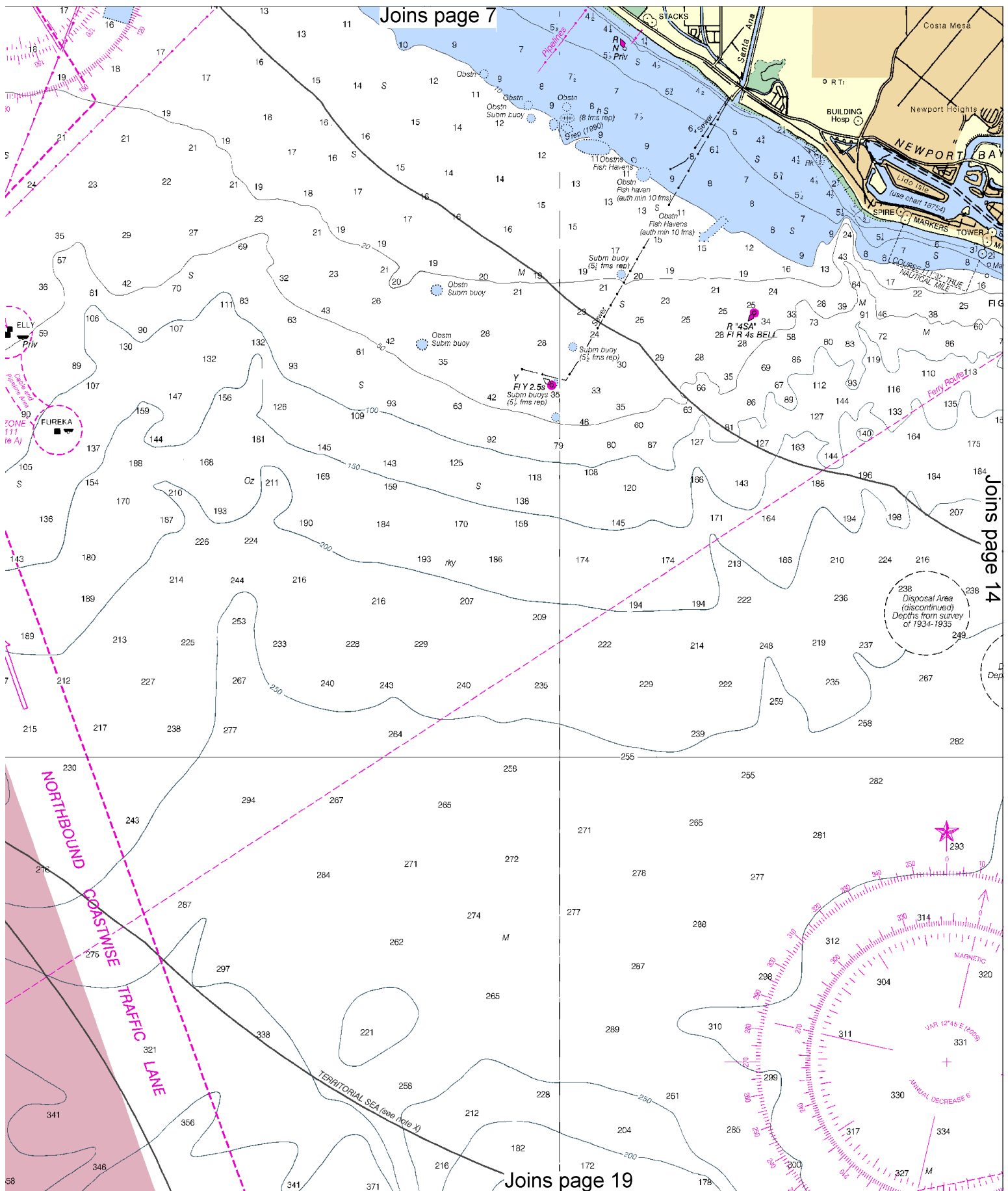


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SCALE 1:80,000

See Note on page 5.







Joins page 7

Joins page 14

Joins page 19

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Joins page 13

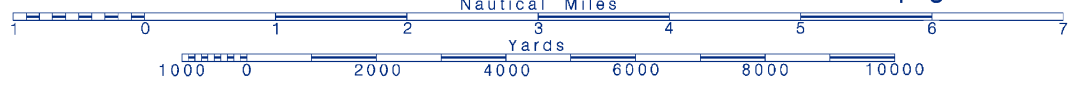
Joins page 20



Printed at reduced scale.

~~SCALE 1:80,000~~

See Note on page 5.

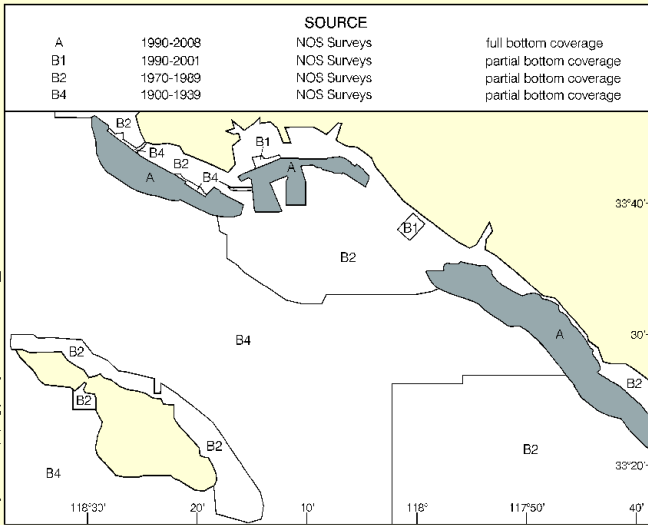
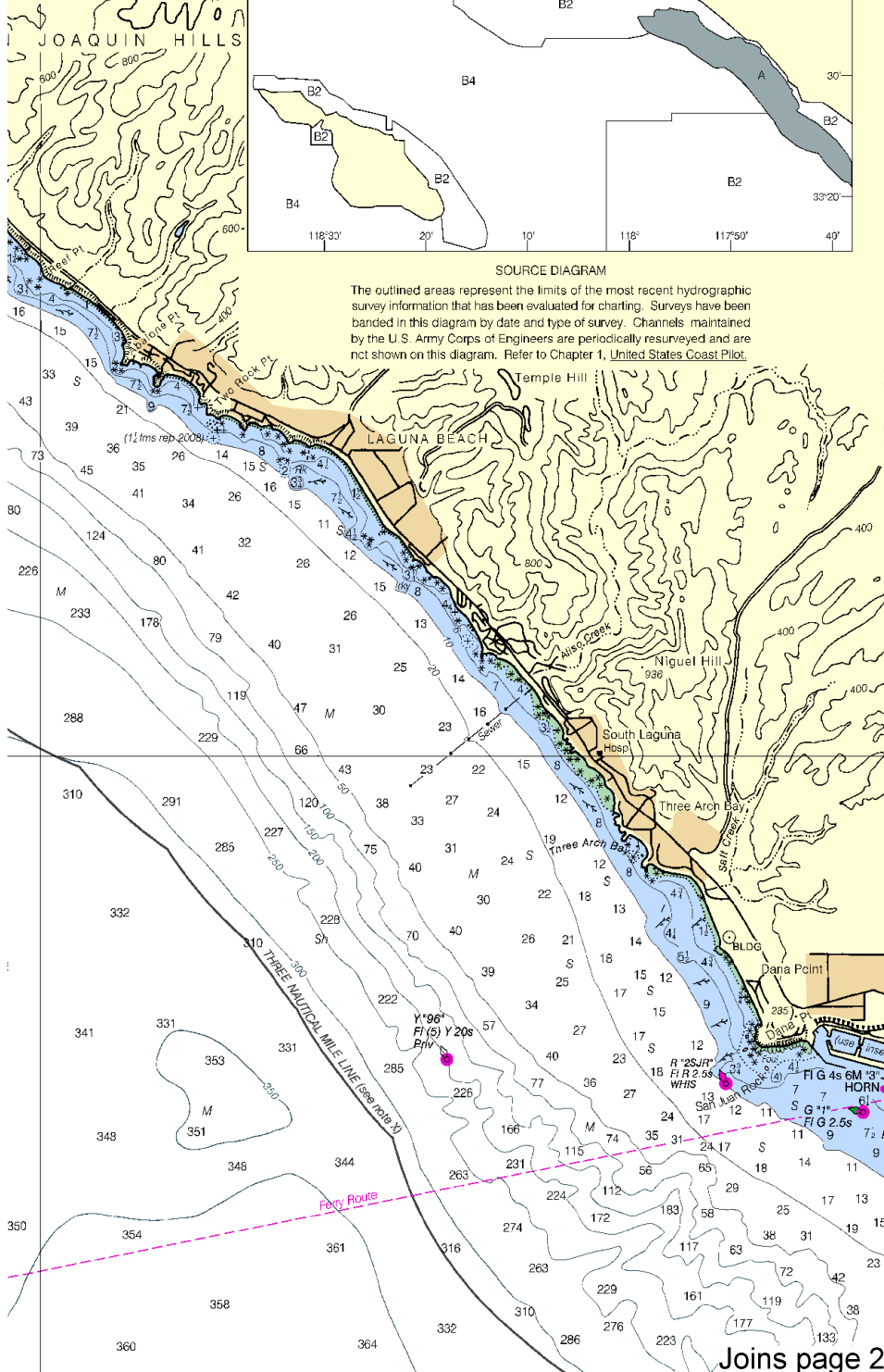


MARINE PIPELINES AND CABLES
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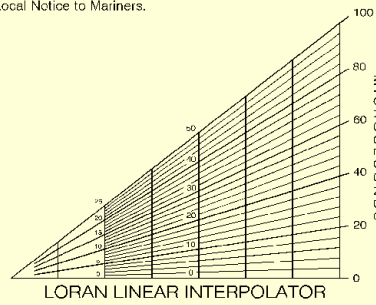
lonal uncharted submarine pipelines and
 ve cables may exist within the area of
 : Not all submarine pipelines and sub-
 cables are required to be buried, and
 at were originally buried may have
 exposed. Mariners should use extreme
 when operating vessels in depths of
 mparable to their draft n areas where
 s and cables may exist, and when
 ig, dragging, or trawling.
 ed wells may be marked by lighted or
 f buoys.

Improved channels Joins page 9
 subject to shoaling, particularly at the edges.

navigation are not indicated on this chart. See
 Local Notice to Mariners.



SOURCE DIAGRAM
 The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



LORAN-C GENERAL EXPLANATION

LORAN-C FREQUENCY 100KHz
 PULSE REPETITION INTERVAL
 9940 99,400 Microseconds
 STATION TYPE DESIGNATORS: (Not individual station letter designators)
 M Master
 W Secondary
 X Secondary
 Y Secondary
 Z Secondary

EXAMPLE: 9940-X

RATES ON THIS CHART

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution. Station positions are shown thus:
 (•) (Accurate location) (o) (Approximate location)

RACING BUOYS

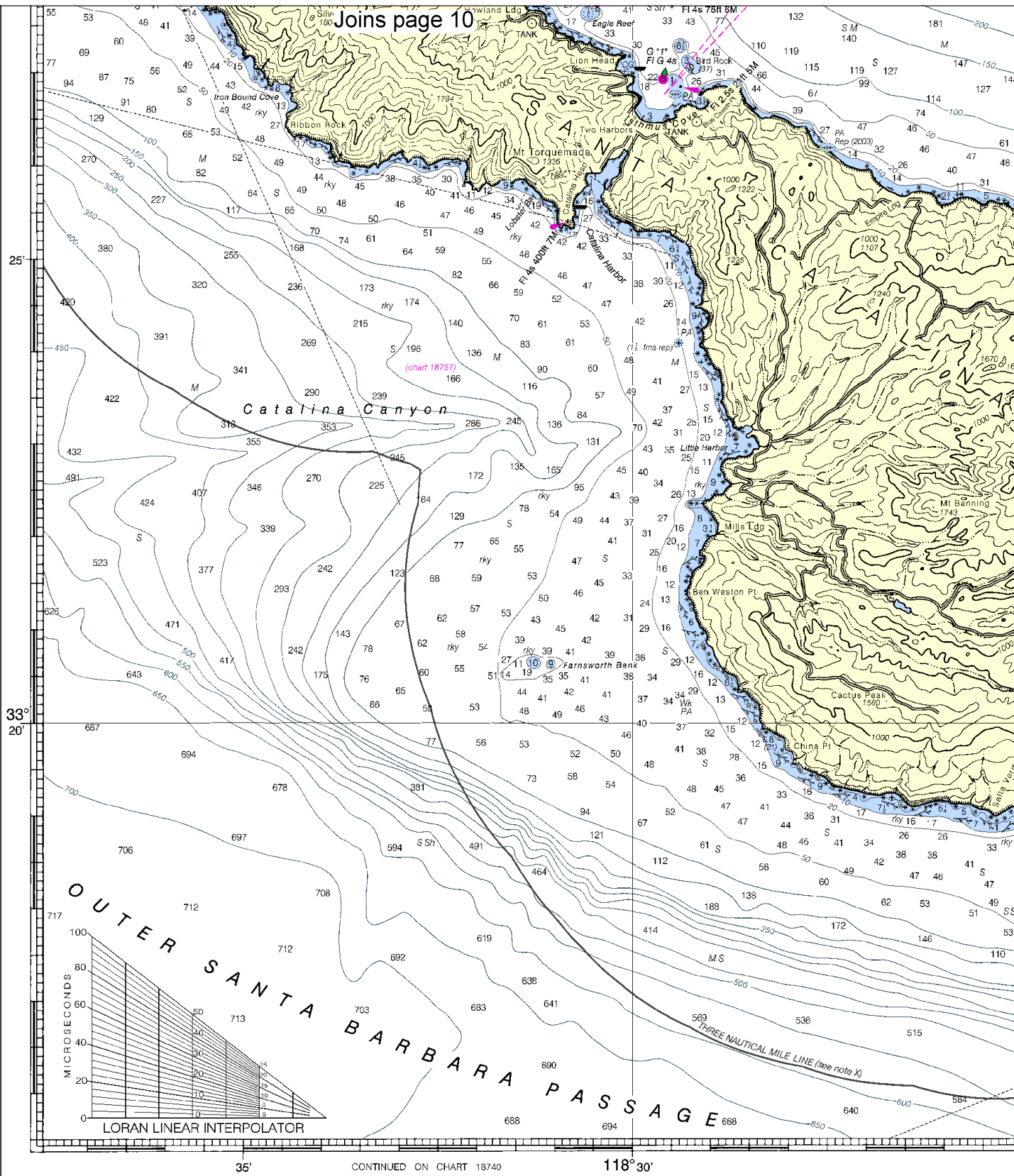
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately maintained buoys are not all listed in the U.S. Coast Guard Light List.

NOTE C

MILITARY EXERCISE AREA
 Mariners are cautioned against possible hazards due to military training activities. Normal hours of operation are 0600-2400 local time daily. For extension of operating times and further information consult U.S. Coast Guard Local Notice to Mariners.

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Joins page 10



38th Ed., Nov. / 09 ■ Corrected through NM Nov. 21/09
Corrected through LNM Nov. 03/09

18746

LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district: to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the date shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the date shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the date shown in the lower left hand corner.

This nautical chart has been designed to promote safe Ocean Service encourages users to submit corrections, and improving this chart to the Chief, Marine Chart Division (P) Service, NOAA, Silver Spring, Maryland 20910-3282.

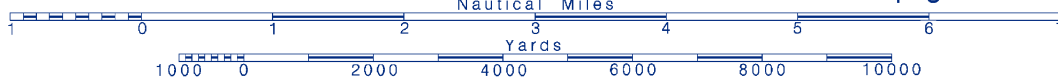
16

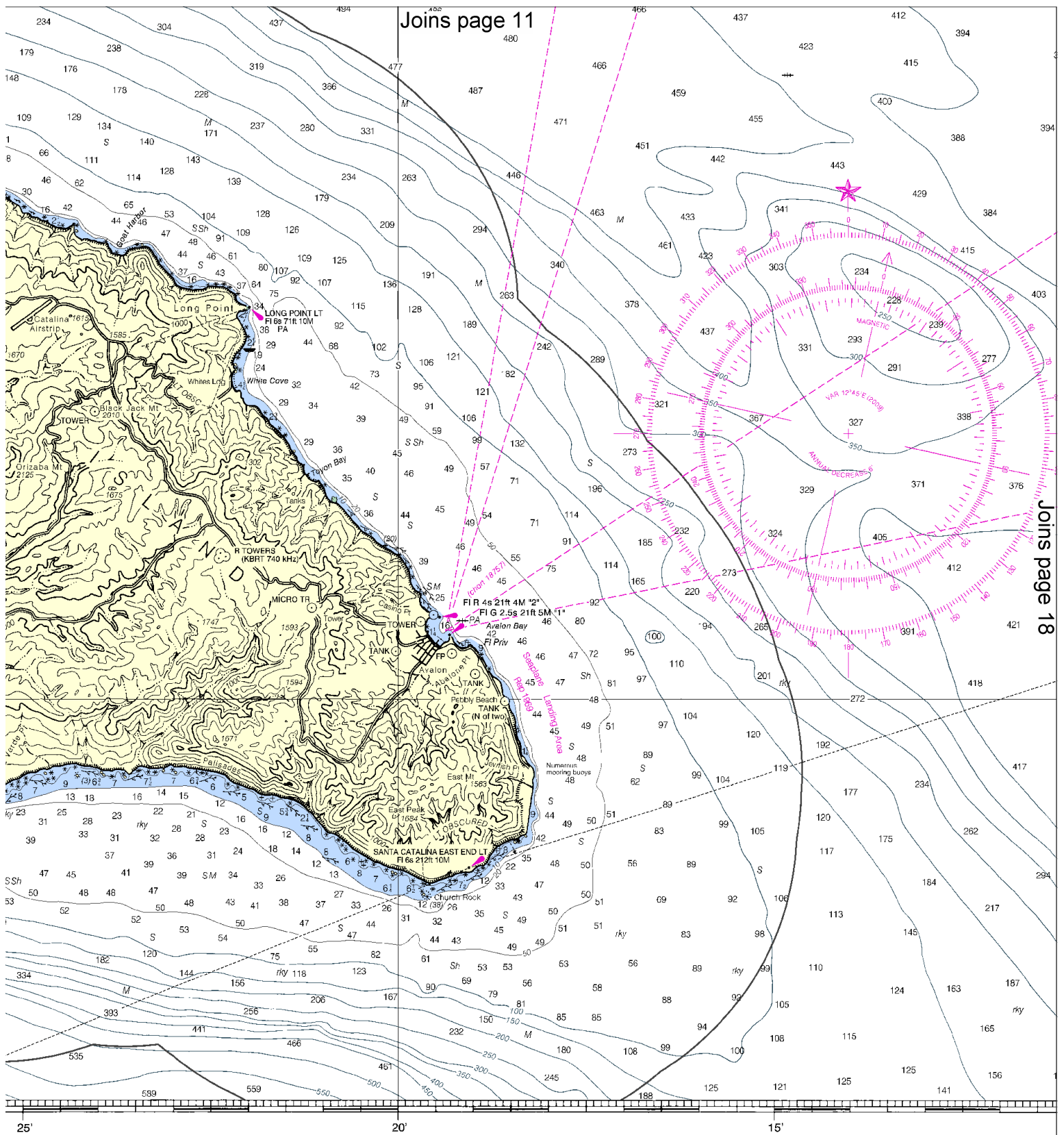


Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.

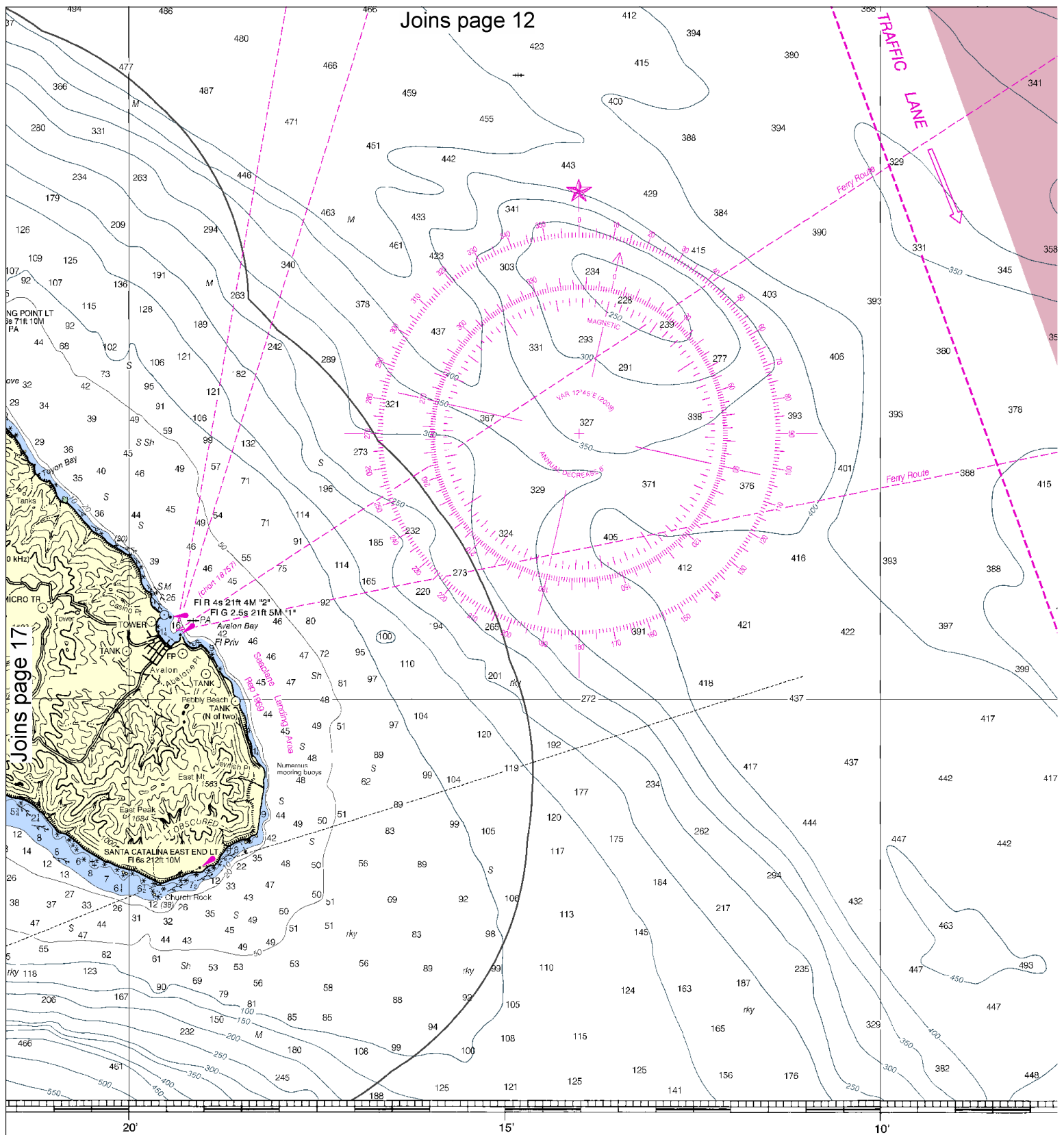




for navigation. The National
additions, or comments for
(N/CS2), National Ocean

SOUNDINGS IN FATHOMS

Joins page 12



SOUNDINGS IN FATHOMS

Published at Wash DC
U.S. DEPARTMENT OF
NATIONAL OCEANIC AND ATMOSPHERIC
NATIONAL OCEANIC AND ATMOSPHERIC
COAST SURVEY

18

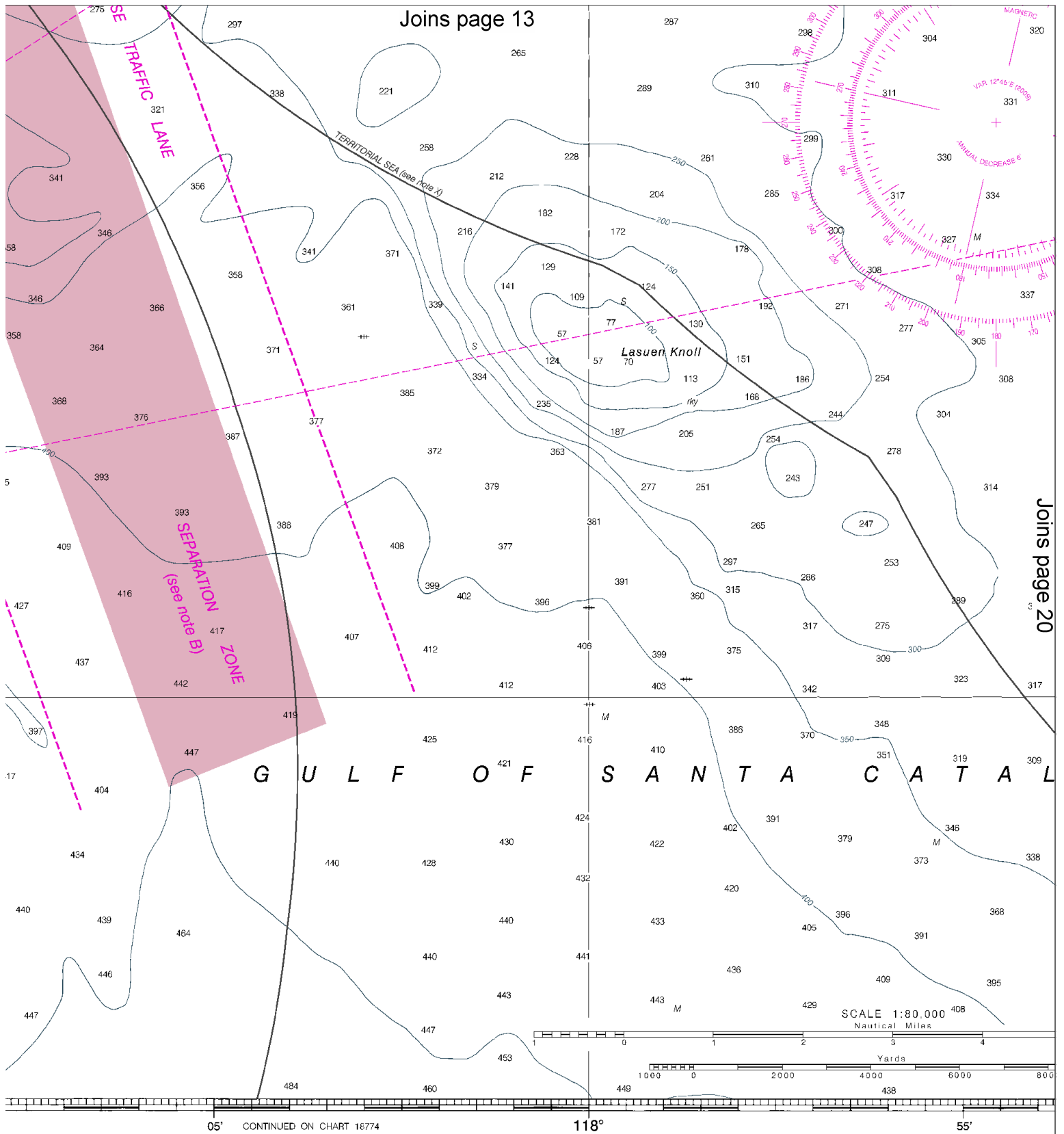


Printed at reduced scale.

SCALE 1:80,000

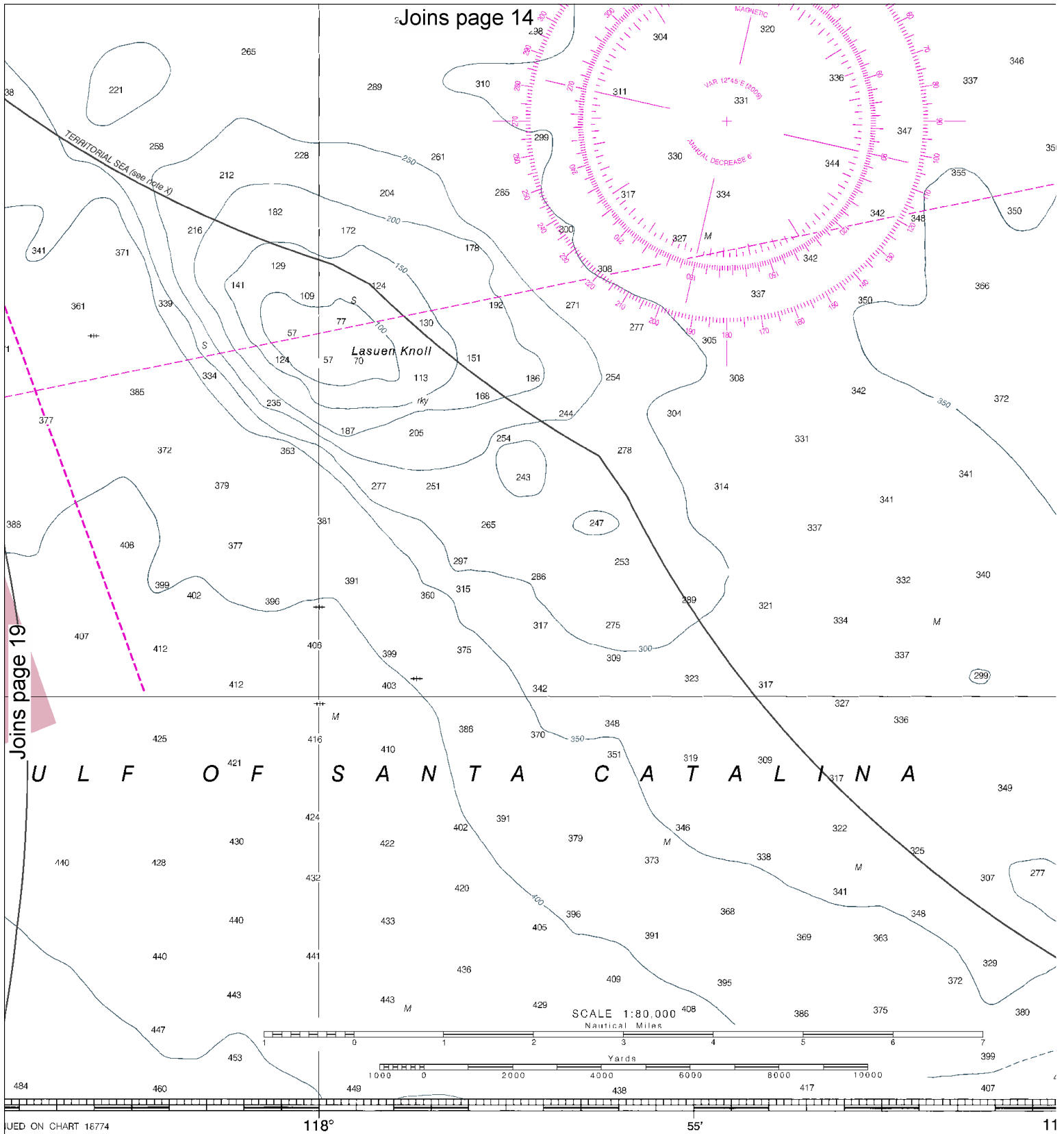
See Note on page 5.





Joins page 20

Joins page 14



PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

FATHOMS	
FEET	
METERS	

20

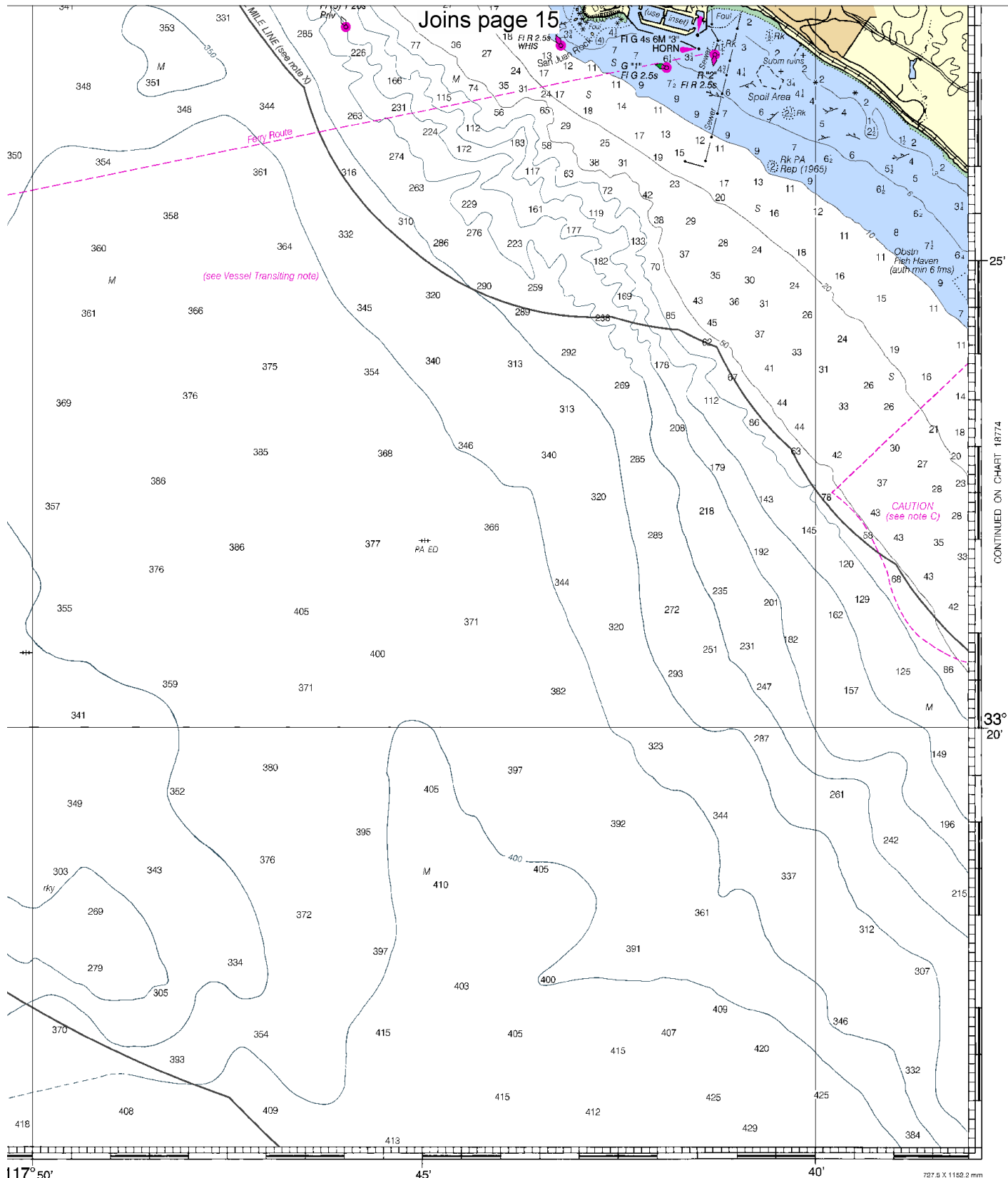


Printed at reduced scale.

SCALE 1:80,000

See Note on page 5.





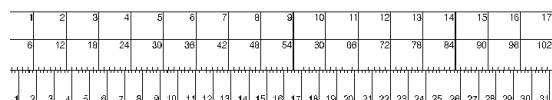
CONTINUED ON CHART 18774

117° 50'

45'

40'

727.5 X 1152.2 mm



San Pedro Channel
SOUNDINGS IN FATHOMS - SCALE 1:80,000

18746
LORAN-C OVERPRINTED



ED. NO. 38



NSN 7642014011508
NGA REFERENCE NO. 18AC018746

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue – 510-437-3700

Coast Guard Los Angeles/Long Beach – 310-732-2030

Coast Guard San Diego – 619-683-6470

Commercial Vessel Assistance – 1-800-367-8222

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENC[®]) – ENC[®]s are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENC[®]s comply with standards of the International Hydrographic Organization. ENC[®]s and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNC[™]) – RNC[™]s are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNC[™]s comply with standards of the International Hydrographic Organization. RNC[™]s and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.

